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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,307	03/22/2004	Gregory A. Stobbs	9305-002DVA	1838

27572 7590 07/09/2008
HARNESSE, DICKEY & PIERCE, P.L.C.
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EXAMINER

CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
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2162

NOTIFICATION DATE	DELIVERY MODE
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07/09/2008

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/806,307
Filing Date: March 22, 2004
Appellant(s): STOBBS ET AL.

Gregory A. Stobbs (Reg. No. 28,764)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 4, 2008 appealing from the Office action mailed January 13, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,038,561	Snyder et al.,	03-2000
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6,233,575	Agrawal et al.,	3-2001
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Andrews "Text classification by bootstrapping with keywords EM and Shrinkage", pages 1-2, 1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Synder et al., (hereinafter “Snyder”) US Patent No. 6,038,561 in view of Agrawal et al., (hereinafter “Agrawal”) US Patent 6,233,575.

As to claims 11-12, Snyder, however, provides an analysis tool that assists users in discovering relationship among thousands of patents (see col.4, lines 1-3). Snyder also provides a sophisticated information retrieval technique that enables the users to analyze claims set or cluster claims based on similarity, see col.4, lines 4-6). Such claim sets or cluster claims as disclosed by Snyder are the pre-described categories of claims that identified by the users. However, Snyder does not use a model corresponding to at least one of the user-prescribed categories, to select from the patent information a subset that fits the model, and then storing that subset in association with a label corresponding to the user-defined category. On the other hands, Agrawal discloses the use of organizing a large text database into hierarchy of topic and for maintaining such organization as documents. Agrawal, discloses a pre-described categories of claims and retrieves a corpus of patent information from a database (as a topic taxonomy for the purpose of

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facilitating searching a cluster of document (patents), see fig.2, col.1, lines 40-46; col.7, lines 32-40). Agrawal, discloses the uses of “a model corresponding to at least one of the user-prescribed categories, to select from the patent information a subset that fits the model, and then storing that subset in association with a label corresponding to the user-defined category” (by creating a statistical model for each topic in the taxonomy and stores the subcategories associated with a label, see col.10, lines 38-46; col.11, lines 16-31).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Snyder’ system by incorporating the use creating a model corresponding to at least one of the user-prescribed categories, to select from the patent information a subset that fits the model, and then storing that subset in association with a label corresponding to the user-defined category, in the same convention manner as disclosed by Agrawal. One having ordinary skill in the art would have found it motivated to use such statistical model of Agrawal into the system of Snyder for the purpose of efficiently organizing the document sets based on the user profile or pre-described information.

3. Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Synder et al., (hereinafter “Snyder”) US Patent No. 6,038,561 in view of Agrawal et al., (hereinafter “Agrawal”) US Patent 6,233,575 and further in view of Andrew et al., (hereinafter “Andrew”) Article entitled “Text classification by Bootstrapping with keywords EM and Shrinkage”.

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As to claims 13-14, Snyder and Agrawal disclose substantially the invention as claimed, except for the use of eigenspace. On the other hand, Andrew discloses the use of eigenspace as a way of providing enough labeled training example to classify a large collection of documents, see fig.1. Bootstrapping process of Andrew is to use the keywords to generate preliminary labels for as many of the unlabeled documents as possible, where each class is given a few keywords, see fig.1, such preliminary labels are generated based on term-matching in a rule list fashion. Second, the bootstrapping algorithm is used to combine hierarchical shrinkage and expectation maximization to correct and complete preliminary labeling provided to classify documents by document matching (having the same meaning). The Expectation maximization works by first training a classifier with only the documents preliminarily labeled by keywords, and then uses the classifier to reassign probabilistically weighted class labels to all the documents by calculating the expectation of the missing class labels and then train a new classifier using the all the documents (see page 53, col.1). Similarly to the description provided by the applicants, where in the specification, the eigenspace defined by the eigenvectors of the known patent text. Thus, the eigenvector technique is that it captures a priori knowledge about population of patent text and then uses this knowledge in classifying the text of other patents and the eigenvector classification technique forms clusters of patents having similar meaning, so that the portfolio analyzer can display them suitably grouped together. Therefore, it is true that the expectation maximization uses labeled documents in the training phase, similar to the Applicant's invention, which associates a predefined category with each training claim in said eigenspace. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

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combined system, Synder and Agrawal the cited teachings of Andrew. On having ordinary skill in the art would have found it motivated to use such eigenspace of Andrew into the combined Synder and Agrawal for the purpose of providing extremely large training sets for good accuracy.

As to claim 15, Snyder discloses the claimed "wherein said patent information includes patent classification information and wherein said analyzing defining a plurality of categories and mapping classification information onto said categories" (col. 17, lines 20-27).

As to claim 16, Snyder discloses the claimed "wherein said patent information includes using both patent classification information and linguistic analysis results to determine said category metrics to be associated with the patent documents" (col. 16, lines 14-18).

As to claim 17, Snyder discloses the claimed "wherein the category metrics are indicative of technical areas of the patent documents"(col.23, lines 20-27).

As to claim 18, Snyder discloses the claimed" retrieving text of claims from the database, wherein the text of claims are from the plurality of patent documents" (col. 12, lines 26-36); "analyzing the text of the claims in order to generate claim breadth metrics for the claims, wherein a claim breadth metric is indicative of claim breadth of a claim, wherein the claim breadth metrics are used to analyze the claims" (col.14, lines 10-20).

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As to claim 19, Snyder discloses the claimed "wherein values of the category metrics are predetermined" (col.23, lines 13-27).

As to claim 20, Snyder discloses the claimed "wherein values of the category metrics are dynamically determined" (col.4, lines 50-56; col.23, lines 13-27).

(10) Response to Argument

Appellant asserted that the "bootstrapping algorithm" as disclosed by Andrew does not require any labeled documents. SO Andrew only presents an alternative approach to text classification that requires no labeled documents; instead, it uses a small set of keywords per class, a class hierarchy and a large quantity of easily obtained unlabeled documents, wherein keywords are used to assign approximate labels to the unlabeled documents by matching. Appellant asserted that applicants are doing quite the opposite of Andrew et al. Applicants are "associating a predefined category with each training claim in said eigenspace"-- thus applicants are using labeled documents in the training phase. The examiner has carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of obviousness relied upon by examiner as support for the rejections. In rejecting the claims under 35 U.S.C. 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness and to provide substantial evidence as to where each limitation found in the prior art reference to arrive at the claimed invention. These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. The examiner has clearly established the first criteria of the prima facie case of obviousness. Second,

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the examiner has provided reasonable interpretation of the claimed languages versus the prior art. In the ground of rejection above, the examiner has drawn the rationale between the claimed invention and the prior used in the rejection and shown how such rationale arrive to the subject matter as claimed. The examiner has provided clear lines of evidence as to where each limitation is found in the prior used in the rejection. The burden is on the Appellant to show how such rationale by the Examiner does not disclose the claimed invention. For clarification, it is kindly submitted that the Bootstrapping process of Andrew is to use the keywords to generate preliminary labels for as many of the unlabeled documents as possible, where each class is given a few keywords, see fig.1, such preliminary labels are generated based on term-matching in a rule list fashion. Second, the bootstrapping algorithm is used to combine hierarchical shrinkage and expectation maximization to correct and complete preliminary labeling provided to classify documents by document matching (having the same meaning). The Expectation maximization works by first training a classifier with only the documents preliminarily labeled by keywords, and then uses the classifier to reassign probabilistically weighted class labels to all the documents by calculating the expectation of the missing class labels and then train a new classifier using the all the documents (see page 53, col.1). Similarly to the description provided by the applicants, where in the specification, the eigenspace defined by the eigenvectors of the known patent text. Thus, the eigenvector technique is that it captures a priori knowledge about population of patent text and then uses this knowledge in classifying the text of other patents and the eigenvector classification technique forms clusters of patents having similar meaning, so that the portfolio analyzer can display them suitably grouped together. It is well noted that the expectation

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maximization uses labeled documents in the training phase, similar to the Applicant's invention, which associates a predefined category with each training claim in said eigenspace. Clearly, Appellant's assertion that Andrew does not use labeled documents in the training phase is an error.

Appellant assertion only relies on the rejection of claims 13-20 being unpatentable over Snyder et al., (hereinafter "Snyder") US Patent No. 6,038,561 in view of Agrawal et al., (hereinafter "Agrawal") US Patent 6,233,575 and further in view of Andrew et al., (hereinafter "Andrew") Article entitled "Text classification by Bootstrapping with keywords EM and Shrinkage". The appellants do not argue the 103 rejection with respect to claims 11-12 over Snyder et al., (hereinafter "Snyder") US Patent No. 6,038,561 in view of Agrawal et al., (hereinafter "Agrawal") US Patent 6,233,575. The Appellants are, therefore, agree that claims 11-12 are unpatentable over Snyder and Agrawal.

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For the above reasons, it is believed that the rejection under 35 USC 103 with respect to claims 11-20 should be sustained.

Respectfully submitted,

/Jean M. Corrielus/
Primary Examiner
Art Unit 2162
July 2, 2008

Conferee:

/Mohammad Ali/

Supervisory Patent Examiner, Art Unit 2169

/Hosain T Alam/

Supervisory Patent Examiner, Art Unit 2166